

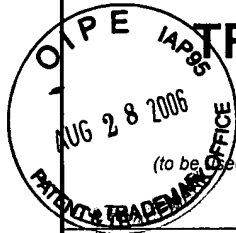
09/919498

PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0061

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	Patent#: 7096246
Filing Date	Issued: August 22, 2006
First Named Inventor	Sebastien Ferroussat
Art Unit	2193
Examiner Name	T. V. Mai
Attorney Docket Number	S1022.80717US00
Total Number of Pages in This Submission	

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Request for Certificate of Correction <input checked="" type="checkbox"/> Certificate of Correction <input type="checkbox"/> Information Disclosure Statement <input checked="" type="checkbox"/> Copies: Origl Trans Ltr, Dec & Pow of Atty Cover of EP 00410090.5 Title Page U.S. 7,096,246 <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): Return Receipt Postcard
Remarks		

Certificate

AUG 31 2006

of Correction

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature			
Printed name	James H. Morris		
Date	August 25, 2006	Reg. No.	34,681

Certificate of Mailing Under 37 CFR 1.8(a)

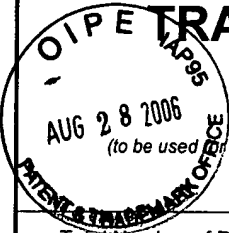
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: August 25, 2006

Signature: (Gail Driscoll)

AUG 31 2006

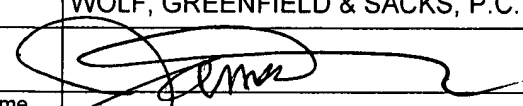
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

	Application Number	Patent#: 7096246
	Filing Date	Issued: August 22, 2006
	First Named Inventor	Sebastien Ferroussat
	Art Unit	2193
	Examiner Name	T. V. Mai
Total Number of Pages in This Submission	Attorney Docket Number	S1022.80717US00

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Request for Certificate of Correction <input checked="" type="checkbox"/> Certificate of Correction <input type="checkbox"/> Information Disclosure Statement <input checked="" type="checkbox"/> Copies: Origl Trans Ltr, Dec & Pow of Atty Cover of EP 00410090.5 Title Page U.S. 7,096,246 <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): Return Receipt Postcard
Remarks		

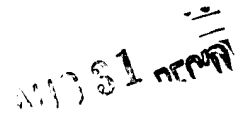
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	WOLF, GREENFIELD & SACKS, P.C.		
Signature			
Printed name	James H. Morris		
Date	August 25, 2006	Reg. No.	34,681

Certificate of Mailing Under 37 CFR 1.8(a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: August 25, 2006

Signature:  (Gail Driscoll)




Docket No.: S1022.80717US00
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Sebastien Ferroussat
Serial No.: 09/919496
Filed: July 30, 2001
For: ARITHMETIC UNIT

Patent No. 7096246
Issued August 22, 2006

Examiner: Tan V. Mai
Art Unit: 2193

Confirmation No. 4821

Certificate of Mailing Under 37 CFR 1.8(a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: Attention: Certificate of Correction Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: 8-25-06


Gail Driscoll

**REQUEST FOR CERTIFICATE OF CORRECTION
PURSUANT TO 37 CFR 1.322**

Attention: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted typographical errors which should be corrected.

Specifically, the inventor's residence is incorrect and the serial number of the priority application is incorrect.

On the title page items (75) and (30) should read as shown below:

(75) Inventor: Sebastien Ferroussat, Anberieu en Rue, (FR)

(30) Foreign Application Priority Data

Aug. 1, 2000 (EP)00410090

AUG 31 2006

In support of this request, Patentee encloses highlighted copies of: 1) the original transmittal letter, 2) the declaration and power of attorney, and 3) the title page of U.S. Patent No. 7,096246. Patentee respectfully submits that, since the errors for which a Certificate of Correction is sought was the result of Patent Office mistake, no fee is due. However, if the Examiner deems a fee necessary, the fee may be charged to the account of the undersigned, Deposit Account No. 23/2825.

Also transmitted herewith is a proposed Certificate of Correction effecting such amendment. Patentee respectfully solicits the granting of the requested Certificate of Correction.

Dated: August 25, 2006

Respectfully submitted,

By: 

James H. Morris

Registration No.: 34,681

WOLF, GREENFIELD & SACKS, P.C.

Federal Reserve Plaza

600 Atlantic Avenue

Boston, Massachusetts 02210-2206

(617) 646-8000

AUG 31 2006

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**

Page 1 of 1

PATENT NO. : 7096246
APPLICATION NO. : 09/919496
ISSUE DATE : August 22, 2006
INVENTOR(S) : Sebastien Ferroussat

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the title page:

(75) Inventor: Sebastien Ferroussat, Anberieu en Rue, (FR)

(30) Foreign Application Priority Data

Aug. 1, 2000 (EP)00410090

MAILING ADDRESS OF SENDER (Please do not use customer number below):

James H. Morris
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206

AUG 31 2006



US007096246B2

(12) **United States Patent**
Ferroussat

(10) **Patent No.:** **US 7,096,246 B2**
(45) **Date of Patent:** **Aug. 22, 2006**

(54) **ARITHMETIC UNIT FOR MULTIPLYING A FIRST QUANTITY X BY A SECOND QUANTITY Y**

5,751,618 A * 5/1998 Abiko et al. 708/490
6,157,939 A * 12/2000 Vo et al. 708/628
6,463,453 B1 * 10/2002 Dang 708/628

(75) **Inventor:** **Sebastien Ferroussat, Fontaine (FR)**

(73) **Assignee:** **STMicroelectronics S.A., Gentilly (FR)**

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 650 days.

FOREIGN PATENT DOCUMENTS

EP 0 497 622 A 8/1992
EP 0 813 143 A 12/1997
WO WO 85 05705 A 12/1985

OTHER PUBLICATIONS

European Search Report from corresponding European Application No. 00410090 filed Aug. 1, 2000.

* cited by examiner

Primary Examiner—Tan V. Mai

(74) *Attorney, Agent, or Firm*—Lisa K. Jorgenson; James H. Morris; Wolf, Greenfield & Sacks, P.C.

(21) **Appl. No.:** **09/919,496**

(22) **Filed:** **Jul. 30, 2001**

(65) **Prior Publication Data**
US 2002/0042805 A1 Apr. 11, 2002

(30) **Foreign Application Priority Data**
Aug. 1, 2000 (EP) 004100920

(51) **Int. Cl.**
G06F 7/52 (2006.01)

(52) **U.S. Cl.** 708/628

(58) **Field of Classification Search** 708/627-628
See application file for complete search history.

(56) **References Cited**

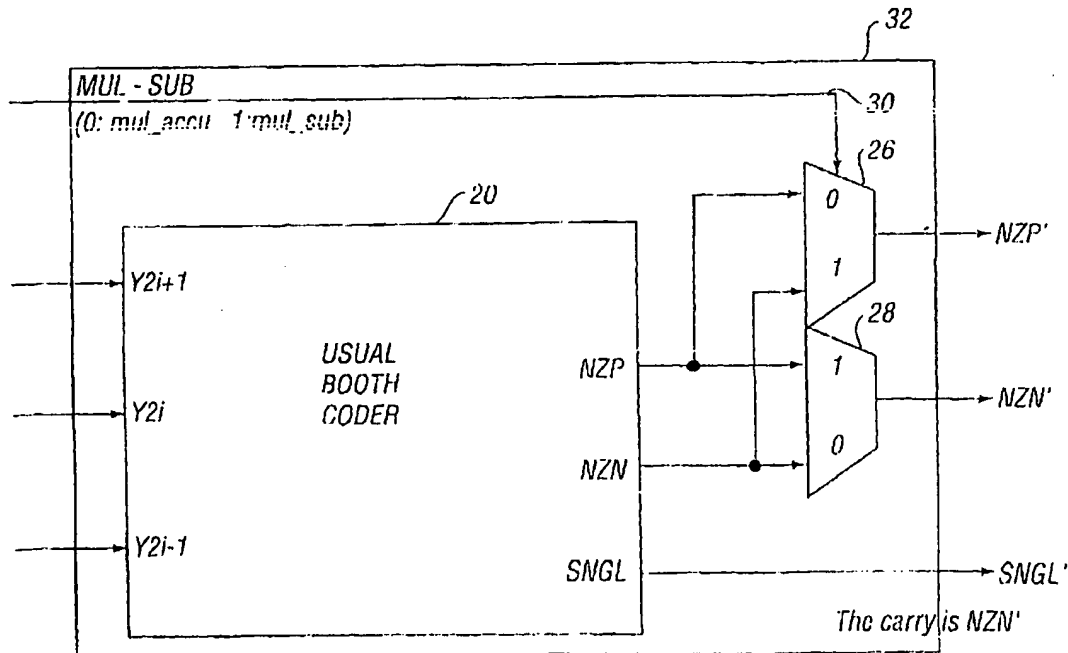
U.S. PATENT DOCUMENTS

4,813,008 A * 3/1989 Shigehara et al. 708/630

(57) **ABSTRACT**

An arithmetic unit for multiplying a first quantity x by a second quantity y, the arithmetic unit including a Booth coder having a plurality of inputs for receiving a plurality bits of the second quantity and a plurality of outputs for providing Booth coded outputs; and circuitry connected to at least one of the inputs and the outputs for modifying at least one output of the coder.

21 Claims, 7 Drawing Sheets



AUG 31 2006

UTILITY PATENT APPLICATION TRANSMITTAL <i>(Only for new nonprovisional applications under 37 CFR 1.53(b))</i>	Attorney Docket No.	S1022/8717
	First Named Inventor or Application Identifier	
	S1022/8717	
	Express Mail Label No.	EL844519025US
	Date of Deposit	July 30, 2001
APPLICATION ELEMENTS <i>See MPEP chapter 600 concerning utility patent application contents</i>		ADDRESS TO: Box Patent Application Commissioner for Patents Washington, DC 20231
1. <input type="checkbox"/> Fee Transmittal Form <i>(Submit an original, and a duplicate for fee processing)</i> 2. <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. <input type="checkbox"/> Statement filed in prior application, Status still proper and desired. 3. <input checked="" type="checkbox"/> Specification [Total pages 22] 18 - pages description 1 - pages abstract 3 - pages claims 24 - Total claims 4. <input checked="" type="checkbox"/> Drawing(s) (35 USC 113) [Total sheets 7] <input checked="" type="checkbox"/> Informal <input type="checkbox"/> Formal [Total drawings 8] 5. <input type="checkbox"/> Oath or Declaration [Total pages] a. <input type="checkbox"/> Newly executed (original or copy) b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63(d)) <i>(for continuation/divisional with Box 17 completed)</i> <i>[Note Box 6 below]</i> i. <input type="checkbox"/> DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 6. <input type="checkbox"/> Incorporation by Reference <i>(usable if Box 5b is checked)</i> The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein. See 18. 7. Application Data Sheet, See 37 CFR 1.76		8. <input type="checkbox"/> CD-ROM or CD-R, in duplicate, large table or Computer Program (Appendix) 9. <input type="checkbox"/> Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. <input type="checkbox"/> Computer Readable Form (CRF) b. <input type="checkbox"/> Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> paper (identical to computer copy) c. <input type="checkbox"/> Statement verifying identity of above copies <div style="text-align: center; border: 1px solid black; padding: 2px;">ACCOMPANYING APPLICATION PARTS</div> 10. <input type="checkbox"/> Assignment Papers/cover sheet & documents(s) 11. <input type="checkbox"/> 37 CFR 3.73(b) Statement <i>(when there is an assignee)</i> <input type="checkbox"/> Power of Attorney 12. <input type="checkbox"/> English Translation of Document <i>(if applicable)</i> 13. <input type="checkbox"/> Information Disclosure Statement/PTO-1449 <input type="checkbox"/> Copies of IDS Citations 14. <input checked="" type="checkbox"/> Preliminary Amendment 15. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) <i>(Should be specifically itemized)</i> 16. <input type="checkbox"/> Certified Copy of Priority Document(s) <i>(if foreign priority is claimed)</i> 17. <input type="checkbox"/> Request and Certification Under 35 U.S.C. §122(b)(2)(B)(ii) 18. <input type="checkbox"/> Other: _____ _____ _____ _____
19a. PURSUANT TO 35 U.S.C. §119, APPLICANT HEREBY CLAIMS PRIORITY TO EUROPEAN PATENT APPLICATION NO. 00410090.5, FILED AUGUST 1, 2000		

EL844519025US

AUG 31 noon

20. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information below and in the body of the application, or a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: _____, filed on _____, entitled _____ and now _____.

☐ Cancel in this application claims _____ before calculating the filing fee.

☐ Amend the specification by inserting before the first line of the specification on page 1, after the title, the following:
--This application is a ☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: _____, filed on _____, entitled _____ and now _____.--

Prior application information: Examiner _____ Group Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

18. CORRESPONDENCE ADDRESS

Correspondence address below

CUSTOMER NUMBER



23628

OR

ATTORNEY'S NAME

James H. Morris, Reg. No. 34,681

NAME

Wolf, Greenfield & Sacks, P.C.

ADDRESS

600 Atlantic Avenue

CITY

Boston

STATE

MA

ZIP

02210

COUNTRY

USA

TELEPHONE

(617) 720-3500

FAX

(617) 720-2441

19. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

NAME

James H. Morris, Reg. No. 34,681

SIGNATURE

DATE

July 30, 2001

DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled ARITHMETIC UNIT the specification of which was filed on July 30, 2001, as United States Application No. 09/919,496, bearing attorney docket No. S1022/8717.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or section 365(a) of any PCT International application designating at least one country other than the United States listed below and have also identified below any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed:

Prior Foreign PCT International Application(s) and any priority claims under 35 U.S.C. §§119 and 365(a),(b):

			Priority Claimed	
00410090.5	Europe	1 August 2000 (01.08.00)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country-if PCT, so indicate)	(DD/MM/YY Filed)	YES	NO
<hr/>				
			<input type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country)	(DD/MM/YY Filed)	YES	NO
<hr/>				
			<input type="checkbox"/>	<input type="checkbox"/>
(Number)	(Country-if PCT, so indicate)	(DD/MM/YY Filed)	YES	NO

I am the inventor of European application number 00410090.5, filed August 1, 2000, which application was filed by the assignee STMicroelectronics, S.A.

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

(Application Number)	(filing date)
<hr/>	
(Application Number)	(filing date)

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s), or §365(c) of any PCT International application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

(Application No.) (filing date) (status-patented, pending, abandoned)

(Application No.) (filing date) (status-patented, pending, abandoned)

PCT International Applications designating the United States:

(PCT Appl. No.) (U.S. Ser. No.) (PCT filing date) (status-patented, pending, abandoned)

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

David Wolf	17,528	Peter C. Lando	34,654	Matthew B. Lowrie	36,904	Daniel P. McLoughlin	46,066
George L. Greenfield	17,756	Gary S. Engelson	35,128	Robert A. Skrivaneck, Jr.	40,886	Robert H. Walat	46,324
Stanley Sacks	19,900	Randy J. Pritzker	35,986	Robert M. Abrahamsen	37,482	Thomas G. Field	45,596
Edward F. Perlman	28,105	Richard F. Giunta	36,149	Edward J. Russavage	43,069	Michael J. Pomianek	46,190
Lawrence M. Green	29,384	Douglas R. Wolf	36,971	Neil P. Ferraro	39,188	M. Brad Lawrence	47,210
Steven J. Henry	27,900	Elizabeth R. Plumer	36,637	Lisa E. Winsor	44,405	Theodore E. Galanthay	24,122
Edward R. Gates	31,616	Timothy J. Oyer	36,628	Mark Steinberg	40,829	Lisa K. Jorgenson	34,845
William R. McClellan	29,409	John N. Anastasi	37,765	Stephen R. Finch	42,534	Robert D. McCutcheon	38,717
Ronald J. Krandsdorf	20,004	Helen C. Lockhart	39,248	Joseph Teja, Jr.	45,157	Mario J. Donato, Jr.	37,816
Jason M. Honeyman	31,624	James M. Hanifin, Jr.	37,929	Jeffrey B. Powers	45,021	Nainesh Shah	40,166
James H. Morris	34,681	John R. VanAmsterdam	33,228	Alan W. Steele	45,128		

Address all telephone calls to James H. Morris at telephone no. (617) 720-3500. Address all correspondence to
James H. Morris
c/o Wolf, Greenfield & Sacks, P.C.,
Federal Reserve Plaza
600 Atlantic Avenue
Boston, MA 02210-2211

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's signature Sebastien Ferroussat Date 20 September 2001
Full name of sole or first inventor Sebastien Ferroussat
Citizenship United States of America - FRANCE
Residence 81 Avenue Aristide Briand, 38600 Fontaine, France 15 rue ANDRE LENITRE, 01500 ANBERIEU EN BUC
Post Office Address 81 Avenue Aristide Briand, 38600 Fontaine, France FRANCE

AUG 31 2006



**Europäisches
Patentamt**

**European
Patent Office**

**Office européen
des brevets**

Bescheinigung

Certificate

Attestation

Die angehefteten Unterla-
gen stimmen mit der
ursprünglich eingereichten
Fassung der auf dem näch-
sten Blatt bezeichneten
europäischen Patentanmel-
dung überein.

The attached documents
are exact copies of the
European patent application
described on the following
page, as originally filed.

Les documents fixés à
cette attestation sont
conformes à la version
initialement déposée de
la demande de brevet
européen spécifiée à la
page suivante.

Patentanmeldung Nr. Patent application No. Demande de brevet n°

00410090.5

Der Präsident des Europäischen Patentamts;
Im Auftrag

For the President of the European Patent Office

Le Président de l'Office européen des brevets
p.o.

AUG 31 2006

Vangeli Tzikas

MÜNCHEN, DEN
MUNICH,
MUNICH, 11

09/01/06

